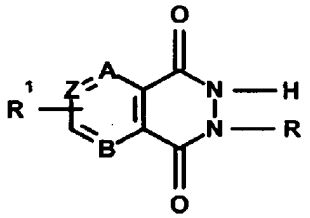
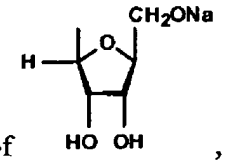
LISTING OF CLAIMS

This listing of claims will replace all prior versions of listings of claims in the application.

1-70. (Cancelled)

71. (New) A method for therapy of disease caused by intracellular acidosis, oxygen deficiency in cell, excessively-formed free radicals, increasing the aggregation of thrombocytes and/or erythrocytes, or harmful action or disorders of nitrergic mechanisms of cell, said method comprising administering to a subject a pharmaceutically-effective amount of a biologically-active compound, said compound having the ability to normalize hydrogen ion concentration in cells to within physiologically-acceptable concentrations, and wherein said biologically-active compound is a cyclic bioisostere of derivatives of a purine system having a general structural formula:





where R is selected from the group consisting of , Li, Na, and K;

R^1 is selected from the group consisting of -H, -NH_2, -Br, -Cl, -OH, and -COOH;

B is selected from the group consisting of -N= and –C=;

Z is selected from the group consisting of -C= and -N=; and

A is selected from the group consisting of -N= and -C=;

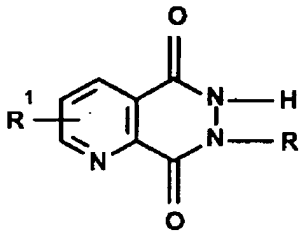
wherein when A is -N=, then B is -N= and Z is -C=,

or pharmacologically acceptable salts thereof.

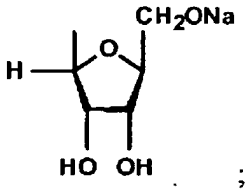
72. (New) The method as claimed in claim 71, wherein the therapy includes hepatoprotective action by administering to a subject a pharmaceutically-effective amount of said cyclic bioisostere of derivatives of a purine system.

73. (New) The method as claimed in claim 71, wherein the disease is included in the group consisting of: tissue hypoxia, oxygen starvation, arterial hypoxia, anemias, ischemias, ischemic strokes, myocardial infarction, trombophlebitises, atherosclerosises, pancreatic diabetes, peritonitis, bronchial asthma, chronic pneumonia, tuberculosises, pleurisy, fever, febrile state, burns, traumas, thrombosis, embolisms, chronic glomerulonephritis, cholelithiasis, membranoproliferative glomerulonephritis, microspherocytosis, rheumatoid arthritis, cystic fibrosis, sepsis, radiation sickness, symptomatic therapy of alcoholic or drug intoxication and abstinence syndrome, thymus involution, hemoglobinopathy, cirrhosis, ordinary obesity, hepatocellular carcinoma, cholestasis, obstructive jaundice, cholangitis, nutmeg liver, abnormalities cerebral blood flow, disseminated sclerosis, and cerebral ischemia.

74. (New) The method as claimed in claim 71, wherein the biologically-active compound is a derivative of pyrido [2,3-d]-6H-pyridazine-5,8-dione having a general formula:



where R is selected from the group consisting of the atom of Li, Na, and K, and



; and

R^1 is selected from the group consisting of -H, $-NH_2$, -Br, -OH, and -COOH.

75. (New) The method as claimed in claim 71, wherein the biologically-active compound is selected from the group consisting of:

sodium salt of 7-(β-B-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-amino-7-(β-B-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 3-bromine-7-(β-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

disodium salt of 4-hydroxy-7-(β-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

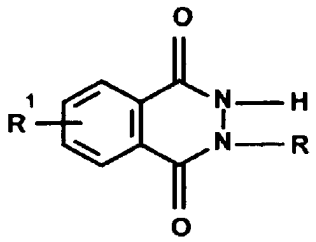
disodium salt of 3-carboxy-7-(β-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

lithium salt of pyrido[2,3-d]-6H-pyridazine-5,8-dione;

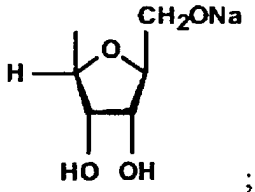
sodium salt of pyrido[2,3-d]-6H-pyridazine-5,8-dione; and

potassium salt of pyrido[2,3-d]-6H-pyridazine-5,8-dione.

76. (New) The method as claimed in claim 71, wherein the biologically-active compound is a derivative of benzo[d]-3H-pyridazine-1,4-dione, having a general formula:



where R is selected from the group consisting of the atom of Li, Na, and K, and



; and

R^1 is selected from the group consisting of -H, $-NH_2$, -Cl, OH, and -COOH.

77. (New) The method as claimed in claim 71, wherein the biologically-active compound is selected from the group consisting of:

sodium salt of 2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione;

sodium salt of 5-amino-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione;

sodium salt of 6-amino-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione;

sodium salt of 5-chlorine-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione;

disodium salt of 5-hydroxy-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione;

lithium salt of 5-amino-benzo[d]-3H-pyridazine-1,4-dione;

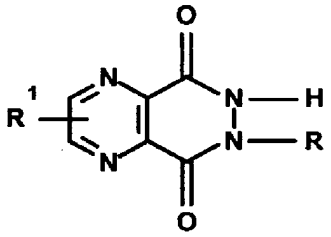
sodium salt of 5-amino-benzo[d]-3H-pyridazine-1,4-dione;

potassium salt of 6-amino-benzo[d]-3H-pyridazine-1,4-dione;

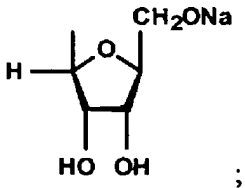
disodium salt of 5-hydroxy-benzo[d]-3H-pyridazine-1,4-dione; and

disodium salt of 6-carboxy-benzo[d]-3H-pyridazine-1,4-dione.

78. (New) The method as claimed in claim 71, wherein the biologically-active compound is a derivative of pyrazine[2,3-d]-6H-pyridazine-5,8-dione, having a general formula:



where R is selected from the group consisting of the atom of Li, Na, and K, and



; and

R^1 is selected from the group consisting of -H, -NH_2, -Br, -OH, and -COOH.

79. (New) The method as claimed in claim 71, wherein the biologically-active compound is selected from the group consisting of:

sodium salt of 7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-amino-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 3-amino-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 3-bromine-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

disodium salt of 2-hydroxy-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

disodium salt of 2-carboxy-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

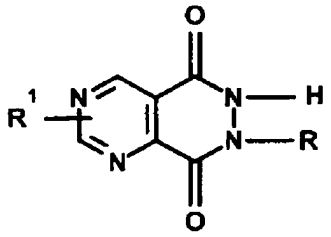
lithium salt of pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

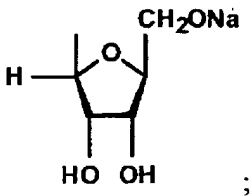
potassium salt of 3-bromine-pyrazine[2,3-d]-6H- pyridazine-5,8-dione; and

sodium salt of 2-amino-pyrazine[2,3-d]-6H-pyridazine-5,8-dione.

80. (New) The method as claimed in claim 71, wherein the biologically-active compound is a derivative of pyrimido[4,5-d]-6H-pyrodazine-5,8-dione having a general formula:



where R is selected from the group consisting of the atom of Li, Na, and K, and



; and

R^1 is selected from the group consisting of -H, -NH_2, -Br, -OH, and -COOH.

81. (New) The method as claimed in claim 71, wherein the biologically-active compound is selected from the group consisting of:

sodium salt of 7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-amino-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-amino-7(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-bromine-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-hydroxy-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-carboxy-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

lithium salt of pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-amino-pyrimido[4,5-d]-6H-pyridazine-5,8-dione; and

potassium salt of 4-bromine-pyrimido[4,5-d]-6H-pyridazine-5,8-dione.